

IN THE CLAIMS

Please amend the claims as shown below.

1. (Previously Withdrawn)

2. (Previously Withdrawn)

3. (Cancelled)

4. - 6. (Previously Withdrawn)

7. (Previously Amended) A micromotor comprising:

an ultrasonically vibrating element; and

a drive circuit comprising:

an oscillating voltage source having a high voltage side connected to and electrifying at least one electrode of said ultrasonically vibrating element to cause a mechanical displacement of a portion thereof; and

a discrete switch arrangement attached to at least one additional electrode of said ultrasonically vibrating element to which said oscillating voltage is not connected which switch arrangement selects the direction of said displacement.

8. (Original) A micromotor according to claim 7 wherein the ultrasonically vibrating element comprises a piezoelectric element.

9. (Previously Amended) A micromotor according to claim 7, wherein:

the at least one additional electrode comprises a plurality of electrodes applied to a first face of said vibrating element; and

the at least one electrode comprises a common electrode applied to a second face of said element.

10. (Original) A micromotor according to claim 9 wherein the discrete switch arrangement selectively applies voltage between a first group of said plurality of electrodes and said common electrode to cause displacement in a first direction, said first group including at least one electrode.

11. (Original) A micromotor according to claim 10, wherein the discrete switch arrangement selectively applies voltage between a second group of said plurality of electrodes and said common electrode to cause displacement in a second direction, said second group comprising at least one electrode.

12. (Cancelled)

13. – 15. (Previously Withdrawn)

16. (Original) A micromotor according to claim 11 wherein said discrete switch arrangement comprises:

- a first Mosfet connected between a first voltage and said first group of electrodes;
- a second Mosfet connected between said first voltage and said second group of electrodes, said common electrode being connected to a second voltage, and
- a control that selectively operates said Mosfet switches to selectively apply said first voltage to the first electrode group or to said second electrode group.

17. (Original) A micromotor according to claim 16 including a source of control voltages selectively applied to the gates of said first and second Mosfet transistors for selectively switching said first or said second Mosfet transistors from the non conducting state to the conducting state.

18. (Previously Amended) A micromotor according to claim 16 and including a pair of diodes, one of which is connected across each said Mosfet transistor.

19. (Original) A micromotor according to claim 18 wherein the diodes are connected such that they conduct DC current toward the micromotor.

20. (Previously Amended) A micromotor according to claim 17 wherein, when the transistor is off, one end of the Mosfet is at a DC voltage equal to the peak of the oscillating voltage and the oscillating voltage is impressed across the Mosfet transistor, such that the voltage across the transistor is substantially unipolar.

21. – 39. (Previously Withdrawn)

40. (Previously Amended) A method of supplying switchable AC power to a micromotor comprising:

connecting a first terminal of an AC power source to one side of the micromotor;
connecting a drain of a Mosfet transistor to a second terminal of the AC power source ;
connecting a source of the Mosfet transistor to the other side of the micromotor and
selectively supplying power to the load by applying a voltage between a gate of the
Mosfet and the second AC terminal.

41. (Original) A method according to claim 40 and including connecting a diode across the
Mosfet transistor.

42. (Original) A method according to claim 41 wherein the diode is connected such that it
conducts current between the second terminal and the other side of the load.

43. (Previously Amended) A method according to claim 40 and including placing a capacitor
in series with the load.

44. (Original) A method according to claim 43 wherein the load does not comprise a DC
blocking capacitor.

45. (Previously Amended) A method according to claim 40 wherein, when the transistor is off,
one end of the Mosfet is at a DC voltage equal to the peak voltage of the AC source and AC
voltage of the AC source is impressed across the Mosfet transistor, such that the voltage across
transistor is substantially unipolar.

46. (Previously Added) A micromotor according to claim 7 wherein fewer than four switches are provided for selectively controlling at least two directions of said displacement.

47. (Previously Added) A micrometer according to claim 46 wherein said fewer than four discrete switches are a single discrete switch per direction of displacement.

48. (Currently Added) A micromotor comprising:

an ultrasonically vibrating element; and

a drive circuit comprising:

an oscillating voltage source having a high voltage side connected to and electrifying at least one electrode of said ultrasonically vibrating element to cause a mechanical displacement of a portion thereof; and

a discrete switch arrangement not connected to the high voltage side of the voltage source and attached to at least one electrode of said ultrasonically vibrating element, which switch arrangement selects the direction of said displacement.

49. (Currently Added) A micromotor comprising:

an ultrasonically vibrating element; and

a drive circuit comprising:

an oscillating voltage source having a high voltage side connected to and electrifying at least one electrode of said ultrasonically vibrating element to cause a mechanical displacement of a portion thereof; and

a discrete switch arrangement attached to at least one additional electrode of said vibrating element that selects the direction of said displacement without switching the high voltage side of the voltage source to or from the at least one additional electrode .